






| | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------|----------------------------------|--------------------------------------|--|
|  | | NTSB ID: CHI98LA084 | | Aircraft Registration Number: N738FX | |
| | | Occurrence Date: 01/20/1998 | | Most Critical Injury: None | |
| | | Occurrence Type: Accident | | Investigated By: NTSB | |
| Location/Time | | | | | |
| Nearest City/Place GRAND ISLAND | State NE | Zip Code 68802 | Local Time 0725 | Time Zone CST | |
| Airport Proximity: On Airport | | Distance From Landing Facility: 1 | | Direction From Airport: 130 | |
| Aircraft Information Summary | | | | | |
| Aircraft Manufacturer Cessna | | Model/Series 208B | | Type of Aircraft Airplane | |
| Sightseeing Flight: No | | | Air Medical Transport Flight: No | | |
| Narrative | | | | | |
| <p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On January 20, 1998, at 0725, central standard time (cst), a Cessna 208B, N738FX, operated by a commercial pilot, as Federal Express flight 8805, sustained substantial damage when on landing at Grand Island Airport, Nebraska, the airplane impacted hard on the runway and subsequently slid off the left side, approximately 1,500 feet down. Instrument meteorological conditions prevailed at the time of the accident. The flight was being conducted as on demand domestic air cargo service under 14 CFR Part 135. An IFR flight plan was on file. The pilot reported no injuries. The flight originated at Omaha, Nebraska, at 0640 cst, and was en route to Grand Island, Nebraska.</p> <p>In his written statement, the pilot said that while in cruise flight between Omaha and Grand Island, he began to pick up moderate ice on the airplane at 4,000 feet mean sea level (msl). The pilot asked Minneapolis Air Route Traffic Control Center (ARTCC), if he could be assigned a higher altitude to get out of the icing conditions. Minneapolis ARTCC approved his request. The pilot said that the airplane reached an altitude of 6,700 feet msl, and would not climb any higher. He reported this to Minneapolis ARTCC, and requested the VOR/DME approach for runway 31 at Grand Island. The pilot maintained 6,500 feet msl until he was approximately 14 miles from the airport, at which time he turned onto the final approach course. The pilot maintained an airspeed between 125 and 140 knots on the approach. The airplane broke out of the overcast ceiling at 2,250 feet msl. When the airplane was over the runway, the pilot reduced the throttle from cruise power. The airplane began to drop. The pilot said that he added power, but it did not stop the sink rate. The airplane touched down hard on the runway. The pilot said that following touchdown, he had no braking capability. The pilot used full right rudder and engine power to stay on the runway. The airplane slowly veered to the left, departed the runway, and turned around 180 degrees in a field, before coming to a stop.</p> <p>The Federal Aviation Administration (FAA) inspector who examined the wreckage, found the airplane, upright in the infield, between runways 31 and 35, approximately 1,500 feet from the approach end of runway 31. The airplane's nose gear strut was bent to the left. The left main landing gear was bent aft and to the left. The left engine mounts and firewall were bent upward. The left horizontal stabilizer and left elevator showed heavy skin buckling. The left propeller showed no damage. Flight control continuity was confirmed. No anomalies with the engine, engine controls, or other airplane systems were found.</p> <p>The FAA inspector observed approximately 1 and 1/2 inches of clear ice adhering to the leading edges of the wings and empennage.</p> | | | | | |
| FACTUAL REPORT - AVIATION | | | | | |

| | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------|----------------------------------------|-----------------------------------|-----------------------|---------------------|
|  National Transportation Safety Board FACTUAL REPORT AVIATION | | NTSB ID: CHI98LA084 | | | | |
| | | Occurrence Date: 01/20/1998 | | | | |
| | | Occurrence Type: Accident | | | | |
| Landing Facility/Approach Information | | | | | | |
| Airport Name CENTRAL NEBRASKA REGIONAL | | Airport ID: GRI | Airport Elevation 1846 Ft. MSL | Runway Used 31 | Runway Length 6608 | Runway Width 150 |
| Runway Surface Type: Concrete | | | | | | |
| Runway Surface Condition: Ice Covered | | | | | | |
| Type Instrument Approach: VOR/DME | | | | | | |
| VFR Approach/Landing: None | | | | | | |
| Aircraft Information | | | | | | |
| Aircraft Manufacturer Cessna | | Model/Series 208B | | Serial Number 208B0482 | | |
| Airworthiness Certificate(s): Normal | | | | | | |
| Landing Gear Type: Tricycle | | | | | | |
| Homebuilt Aircraft? No | | Number of Seats: 6 | Certified Max Gross Wt. 3800 LBS | Number of Engines: 1 | | |
| Engine Type: Turbo Prop | | Engine Manufacturer: P&W | Model/Series: PT-6A-114A | Rated Power: 675 HP | | |
| - Aircraft Inspection Information | | | | | | |
| Type of Last Inspection Annual | | Date of Last Inspection 12/23/1997 | Time Since Last Inspection 41 Hours | Airframe Total Time 1139 Hours | | |
| - Emergency Locator Transmitter (ELT) Information | | | | | | |
| ELT Installed? Yes | | ELT Operated? No | ELT Aided in Locating Accident Site? | | | |
| Owner/Operator Information | | | | | | |
| Registered Aircraft Owner FEDERAL EXPRESS CORPORATION | | Street Address 3101 TCHULAHOMA ROAD | | | | |
| | | City MEMPHIS | State TN | Zip Code 38118 | | |
| Operator of Aircraft BARON AVIATION SERVICES, INC. | | Street Address P. O. BOX 518 | | | | |
| | | City VICHY | State MO | Zip Code 65580 | | |
| Operator Does Business As: FEDERAL EXPRESS | | | | Operator Designator Code: FDEA | | |
| - Type of U.S. Certificate(s) Held: | | | | | | |
| Air Carrier Operating Certificate(s): Cargo; On-demand Air Taxi | | | | | | |
| Operating Certificate: | | | Operator Certificate: | | | |
| Regulation Flight Conducted Under: Part 135: Air Taxi & Commuter | | | | | | |
| Type of Flight Operation Conducted: Unknown | | | | | | |
| FACTUAL REPORT - AVIATION | | | | | | |

|  National Transportation Safety Board FACTUAL REPORT AVIATION | | | NTSB ID: CHI98LA084 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------|--------------------------------------|-----------------------|---------------------------------------|-----------------------------|------------------|----------------------|---------|---------------------|------------------------|-----------------------|-------|------------|--------|------------|--------|------------------|------------------|-----------|------------|------|------|------|-----|------|-----|-----|--|--|--|-----------------------|------|------|------|-----|------|-----|-----|--|--|--|------------|------|--|------|--|----|--|--|--|--|--|--------------|-----|-----|-----|---|-----|----|--|--|--|--|--------------|----|----|----|---|----|---|--|--|--|--|---------------|---|---|---|--|---|--|--|--|--|--|
| | | | Occurrence Date: 01/20/1998 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | Occurrence Type: Accident | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| First Pilot Information | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Name On File | | | City On File | | State On File | Date of Birth On File | Age 38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sex: M | Seat Occupied: Left | | Principal Profession: Civilian Pilot | | | Certificate Number: On File | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Certificate(s): Flight Instructor; Commercial | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Airplane Rating(s): Multi-engine Land; Single-engine Land | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rotorcraft/Glider/LTA: None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Instrument Rating(s): Airplane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Instructor Rating(s): Airplane Multi-engine; Airplane Single-engine; Instrument Airplane | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type Rating/Endorsement for Accident/Incident Aircraft? Yes | | | | | Current Biennial Flight Review? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Medical Cert.: Class 2 | | Medical Cert. Status: Valid Medical--w/ waivers/lim. | | | Date of Last Medical Exam: 01/14/1998 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <th rowspan="2">- Flight Time Matrix</th> <th rowspan="2">All A/C</th> <th rowspan="2">This Make and Model</th> <th rowspan="2">Airplane Single Engine</th> <th rowspan="2">Airplane Multi-Engine</th> <th rowspan="2">Night</th> <th colspan="2">Instrument</th> <th rowspan="2">Rotorcraft</th> <th rowspan="2">Glider</th> <th rowspan="2">Lighter Than Air</th> </tr> <tr> <th>Actual</th> <th>Simulated</th> </tr> <tr> <td>Total Time</td> <td>7500</td> <td>5000</td> <td>6950</td> <td>550</td> <td>2450</td> <td>660</td> <td>115</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Pilot In Command(PIC)</td> <td>7550</td> <td>5000</td> <td>6900</td> <td>540</td> <td>2447</td> <td>660</td> <td>115</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Instructor</td> <td>1250</td> <td></td> <td>1250</td> <td></td> <td>50</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 90 Days</td> <td>140</td> <td>120</td> <td>139</td> <td>1</td> <td>100</td> <td>10</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 30 Days</td> <td>50</td> <td>40</td> <td>49</td> <td>1</td> <td>35</td> <td>4</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Last 24 Hours</td> <td>2</td> <td>2</td> <td>2</td> <td></td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | | | | | | | - Flight Time Matrix | All A/C | This Make and Model | Airplane Single Engine | Airplane Multi-Engine | Night | Instrument | | Rotorcraft | Glider | Lighter Than Air | Actual | Simulated | Total Time | 7500 | 5000 | 6950 | 550 | 2450 | 660 | 115 | | | | Pilot In Command(PIC) | 7550 | 5000 | 6900 | 540 | 2447 | 660 | 115 | | | | Instructor | 1250 | | 1250 | | 50 | | | | | | Last 90 Days | 140 | 120 | 139 | 1 | 100 | 10 | | | | | Last 30 Days | 50 | 40 | 49 | 1 | 35 | 4 | | | | | Last 24 Hours | 2 | 2 | 2 | | 2 | | | | | |
| - Flight Time Matrix | All A/C | This Make and Model | Airplane Single Engine | Airplane Multi-Engine | Night | Instrument | | | | | | | | Rotorcraft | Glider | | | | Lighter Than Air | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Actual | Simulated | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Time | 7500 | 5000 | 6950 | 550 | 2450 | 660 | 115 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pilot In Command(PIC) | 7550 | 5000 | 6900 | 540 | 2447 | 660 | 115 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Instructor | 1250 | | 1250 | | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last 90 Days | 140 | 120 | 139 | 1 | 100 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last 30 Days | 50 | 40 | 49 | 1 | 35 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Last 24 Hours | 2 | 2 | 2 | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Seatbelt Used? Yes | | Shoulder Harness Used? Yes | | | Toxicology Performed? No | | Second Pilot? No | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flight Plan/Itinerary | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type of Flight Plan Filed: IFR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Departure Point | | State | | Airport Identifier | | Departure Time | | Time Zone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OMAHA | | NE | | OMA | | 0640 | | CST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Destination | | State | | Airport Identifier | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Same as Accident/Incident Location | | | | GRI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type of Clearance: IFR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type of Airspace: Class D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Weather Information | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Source of Briefing: Flight Service Station | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Method of Briefing: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------|-----------------------------|---------------------------------|------------------------------|
|  National Transportation Safety Board FACTUAL REPORT AVIATION | | | NTSB ID: CHI98LA084 | | |
| | | | Occurrence Date: 01/20/1998 | | |
| | | | Occurrence Type: Accident | | |
| Weather Information | | | | | |
| WOF ID | Observation Time | Time Zone | WOF Elevation | WOF Distance From Accident Site | Direction From Accident Site |
| GRI | 0758 | CST | 1846 Ft. MSL | 1 NM | 130 Deg. Mag. |
| Sky/Lowest Cloud Condition: Unknown | | | 0 Ft. AGL | Condition of Light: Dawn | |
| Lowest Ceiling: Overcast | | | 500 Ft. AGL | Visibility: 2.5 SM | Altimeter: 29.00 "Hg |
| Temperature: -3 °C | Dew Point: -4 °C | Wind Direction: 80 | | Density Altitude: 336 Ft. | |
| Wind Speed: 9 | Gusts: | Weather Conditions at Accident Site: Instrument Conditions | | | |
| Visibility (RVR): 0 Ft. | Visibility (RVV) 0 SM | Intensity of Precipitation: Light | | | |
| Restrictions to Visibility: None | | | | | |
| Type of Precipitation: Freezing Drizzle | | | | | |
| Accident Information | | | | | |
| Aircraft Damage: | | Aircraft Fire: | | Aircraft Explosion | |
| Classification: | | | | | |
| - Injury Summary Matrix | Fatal | Serious | Minor | None | TOTAL |
| First Pilot | | | | 1 | 1 |
| Second Pilot | | | | | |
| Student Pilot | | | | | |
| Flight Instructor | | | | | |
| Check Pilot | | | | | |
| Flight Engineer | | | | | |
| Cabin Attendants | | | | | |
| Other Crew | | | | | |
| Passengers | | | | | |
| - TOTAL ABOARD - | | | | 1 | 1 |
| Other Ground | 0 | 0 | 0 | | 0 |
| - GRAND TOTAL - | 0 | 0 | 0 | 1 | 1 |
| | | | | | |
| FACTUAL REPORT - AVIATION | | | | | |

| | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|--|
|  National Transportation Safety Board FACTUAL REPORT AVIATION | NTSB ID: CHI98LA084 | |
| | Occurrence Date: 01/20/1998 | |
| | Occurrence Type: Accident | |
| Administrative Information | | |
| Investigator-In-Charge (IIC) DAVID C. BOWLING | | |
| Additional Persons Participating in This Accident/Incident Investigation: JIM SAZAMA FAA-LINCOLN MUNICIPAL AIRPORT LINCOLN, NE 68524 | | |
| FACTUAL REPORT - AVIATION | | |